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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,852	05/17/2006	Dietmar Van Der Linden	R.307220	8908
2119 7590 11/05/2009 RONALD E. GREIGG GREIGG & GREIGG P.L.L.C. 1423 POWHATAN STREET, UNIT ONE ALEXANDRIA, VA 22314				
EXAMINER				
MCALISTER, WILLIAM M				
ART UNIT		PAPER NUMBER		
3753				
MAIL DATE		DELIVERY MODE		
11/05/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/579,852

**Applicant(s)**

VAN DER LINDEN ET AL.

**Examiner**

WILLIAM MCCALISTER

**Art Unit**

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8, 12, 13, 15-17, 19-22 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) 12, 13, 16, 17, 20-22 and 25-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8, 15 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/19/2009 has been entered.

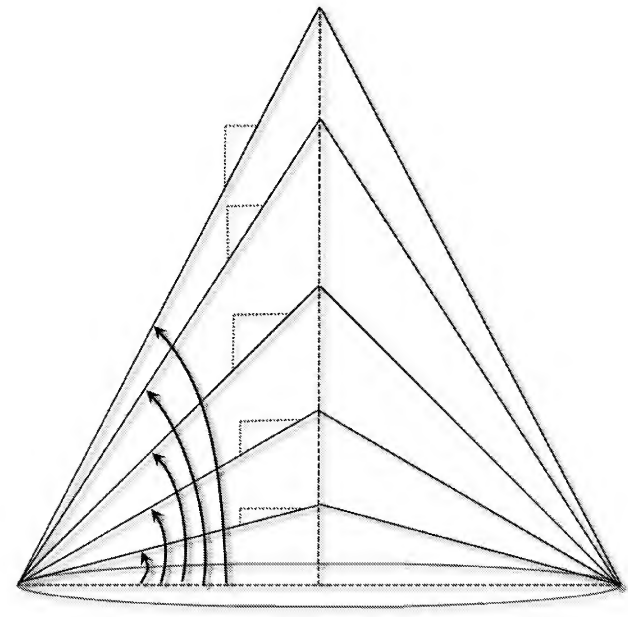
Claims 1-7, 9-11, 14, 18, 23 and 24 have been cancelled. Claims 12, 13, 16, 17, 20-22 and 25-27 have been withdrawn. Claims 8, 15 and 19 are pending for immediate consideration.

***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talaski (US 2005/0016599).

Art Unit: 3753

With reference to the figure below, note that as a cone's slope increases, the cone's base angle increases. A cone's base angle is considered a "cone angle" as claimed, under the broadest reasonable interpretation of this term.



Regarding claim 8, Talaski discloses (see FIG 8) a valve with a bore (14') of increasing diameter from left to right. Talaski discloses at least 5 conical surfaces (40) located along this bore, each formed of a section of a cone (see ¶ [0027]) which has a cone base angle (inherently, as illustrated above). In the direction of increasing bore diameter (from left to right, FIG 8), Talaski discloses these cone sections to have increasing cone slopes and therefore increasing cone base angles.

Talaski also discloses a valve member (16) which cooperates with a valve seat, and discloses the configuration of this valve member to be variable (see ¶ [0028]). Talaski does not disclose which conical surface forms the valve seat in the context of FIG 8. To change the cracking pressure of Talaski's valve, it would have been obvious to size the valve member such that an appropriate surface area of the valve member faces upstream when the valve member is seated. This would result in the valve seat corresponding to a central conical surface where the required cracking pressure so dictates.

Regarding claim 15, the claimed method of machining would not impart any distinctive structural characteristics, and this recitation therefore does not further define the claimed valve.

4. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Talaski in view of Trudeau (WO 99/64202).

Talaski discloses the invention as claimed, with exception to the hardened seat. Trudeau teaches that it was known in the art at the time of invention to harden such a valve seat. To extend the operational life of Talaski's valve, it would have been obvious to harden the valve seat, as taught by Trudeau.

### ***Response to Arguments***

5. Applicant's arguments, regarding the Citroen reference and the obviousness of duplicating Citroen's parts have been fully considered and are persuasive. The rejection of the claims on these grounds has been withdrawn.
6. Applicant's arguments not addressed herein have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM MCCALISTER whose telephone number is (571)270-1869. The examiner can normally be reached on Monday through Friday, 9-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WILLIAM MCCALISTER/  
Examiner, Art Unit 3753  
  
10/27/2009

/John Rivell/  
Primary Examiner, Art Unit 3753